FGDC Member Agencies	1) Subcommittee/Working Group Participation	2) Strategy	3) Compliance
A) BLM - Bureau of Land Management	Received incomplete report.	Did not answer.	BLM's cadastral data is compliant with the FGDC Cadastral Data Content Standard. The level of compliance, however, is being evaluated along with the compliance with metadata. This evaluation should be completed within the 2nd quarter of FY05.
B) DOC - Department of Commerce - Bureau of the Census & National Oceanic and Atmospheric Administration	FGDC Base Cartographic Subcommittee, FGDC Cadastral Subcommittee, GPS Interagency Council, FGDC Subcommittee on Spatial Climate Subcommittee, FGDC Biological Data Working Group, FGDC Clearinghouse Working Group, FGDC Coordination Group, FGDC Standards Working Group, FGDC Civil Imagery and Remote Sensing Taskforce, FGDC Homeland Security Working Group, FGDC Tribal Working Group, FGDC Subcommittee on Federal Geodetic Control (Lead), FGDC Subcommittee on Marine and Coastal Spatial Data (Lead), FGDC Marine Boundary Working Group (Lead), FGDC Subcommittee on Cultural & Demographic Data (Lead), FGDC Cultural and Demographic Statistics Working Group (Lead), FGDC Governmental Units Working Group (Lead)	Yes. 3 primary DOC agencies involved in this: a) NOAA's Coastal Services Center strategic plan outlines a strategy pursuant to Circular A-16. B) Census establishes agency policies related to FGDC standards and coordination. C) NOAA's National Geodetic Survey's principal activities are collecting, processing, archiving, and distribution of spatial data.	NOAA and Census are both members of the FGDC Standards Working Group and are well aware of the FGDC Standards. Standards used include: Content Standards for Digital Geospatial Metadata, Shoreline Metadata Profile of the content Standards for Digital Geospatial Metadata, Remote Sensing Extension of the Content Standard for Geospatial Metadata, Geospatial Positioning Accuracy Standards, Part 1 and Part 2; Spatial Data Transfer Standard Part 6: Point Profile Metadata Profile for Shoreline Data. Census Bureau's spatial data compliance is solely at the exchange level.
C) DOD - Department of Defense (Installations & Environment)	None. The new DISDI Strategic Plan will enable more DoD business domain representation on appropriate subcommittees and working groups.	Defense Installation Spatial Data Infrastructure (DISDI) Office created July 2004 to satisfy OMB Circular A-16 responsibilities and to manage development and use of the DoD Installation Visualization Tool (IVT); Primary focal point for developing a detailed strategy for integrating geographic information and spatial data activities across the DoD business domain; Strategic goals include compiling a DISDI Strategic Plan in FY05 to manage DoD geospatial information resources IAW the ITMRA of 1996 and the 2004 DoD CIO Information Management Strategic Plan and complement the DoD Business Management Modernization Plan effort.	All spatial data holdings compiled to deliver the IVT capability were catalogued in accordance with the FGDC Content Standard for Digital Geospatial Metadata (CSDGM); The FY05 DISDI Strategic Plan will detail how the DoD business domain can become more involved in Framework Standards development and adoption.
D) DOD - NGA - National Geospatial-Intelligence Agency	Base Cartographic SC, Geodetic Control SC, International Boundaries SC, Marine and & Coastal Spatial Data SC, Geospatial Applications and Interoperability WG, Marine Boundaries WG, Standards WG	NGA's core business is geospatial intelligence. The primary focus is intelligence and combat support and is mostly non-domestic. NGA is undertaking a GOS support activity to share metadata and data that satisfies all the terms and direction of OMB Circular A-16 including Paragraph 7.	NGA is active in the development of standards through the National Center for Geospatial Intelligence Standards and works closely with ANSI and ISO. NGA personnel participated in Modeling Advisory Teams during development of the GOS Framework Standards. NGA personnel have reviewed the draft standards and expect to participate in the editing committees for several of the themes. NGA uses the FGDC Content Standard for Digital Geospatial Metadata.
E) DOD - USACE - U.S. Army Corps of Engineers	Clearinghouse, Standards, Bathymetric, Geodetic, Homeland Security, Hydrography, Base Carto/National Digital Elevation Program	Yes, USACE issued Engineer Regulation 1110-1-8156 and Engineer Manual 1110-1-2909 in 1995, which details USACE geospatial data and systems strategy and requirements. Currently, both documents are under revision	USACE has developed (through the FGDC Facilities Working Group) the Spatial Data Standards for Facilities, Infrastructure and the Environment (SDSFIE) and the Architecture/Engineering/Construction CADD Standards. When FGDC content standards are issued, USACE incorporates them into the SDSFIE. In 2004, the USACE Deputy Commanding General issued guidance to the field on implementing the SDSFIE and CADD standards. A web site was established to measure compliance with the standards. USACE requires that all acquired/collected data be documented using the FGDC Metadata Standard.

FGDC Member Agencies	1) Subcommittee/Working Group Participation	2) Strategy	3) Compliance
F) DOT - Department of Transportation	Geospatial One-Stop Initiative, FGDC Coordination Group, FGDC Steering Committee, FGDC Standards Working Group, Geospatial Applications and Interoperability WG, FGDC Homeland Security WG, DOD's Joint Forces Command Homeland Infrastructure Foundation Level Database (HIFLD) (to see the non-FGDC subcommittee working groups and subcommittees, please see DOT report)	Most modal administrations have not developed a strategic plan for integrating GIS data into their business process; however, many of the modal administrations have been making important initial strides in this direction. BTS is implementing a detailed strategic plan to engage modal administration and encourage greater participation and contributions from all of the modal administrations. We have not formalized the schedule for this project. (For more examples see DOT report)	All data created by BTS is compliant with FGDC Standards. All data distributed includes FGDC compliant metadata. BTS plans to implement all future GOS standards approved through the FGDC and / or ANSI process. BTS conducts QA/QC on other transportation data distributed through the National Transportation Atlas Databases (NTAD) Program as well as prepare FGDC compliant Metadata for each.
G) EPA - Environmental Protection Agency	Subcommittees: Federal Geodetic Control, Marine & Coastal Spatial Data, Spatial Water Data, National Hydrography Framework Standards Working Groups: Earth Cover, Facilities, Geospatial Applications & Interoperability, Homeland Security, Data Standards, Future Directions, Tribal Task Forces: Committee on Civil Imagery and Remote Sensing Task Force	Yes. The EPA Geospatial Blueprint (June 2003) lays out goals, objectives, and key action items for integrating geographic information and spatial data activities into EPA business processes. This Blueprint emphasizes the importance of complying with and implementing the FGDC strategy, pursuant to OMB Circular A-16.	EPA data holdings are compliant with FGDC point data standards and several EPA regions are fully compliant with FGDC metadata standards. EPA is taking several formal steps to ensure total compliance with the FGDC standards required by OMB Circular A-16. (see EPA report for more details)
H) FCC - Federal Communications Commission	Coordination Group; Homeland Security Working Group; Marine Boundaries; Tribal; and Federal Geodetic Control Subcommittee & GPS Interagency Advisory Council	The principle function of the Commission is the licensing of radio communications facilities which requires an applicant to file an application to construct, build and operate a facility. Many of the applications have a geospatial component which identifies where the facility is to be located and the area served. This geospatial information is needed to minimize harmful interference to other facilities and maximize spectrum utilization.	The FCC is in the process of reviewing our licensing databases vis-à-vis compliance with the National Spatial Data Infrastructure (NSDI) standards. We know that in the case of one licensing system, coordinate data is North American Datum of 1927 (NAD 27) but not North American Datum of 1983 (NAD 83) compliant. In order to convert to NAD 83, a rulemaking is required. We are seeking funds internally in FY05 generate metadata for all our systems that contain geospatial data and to determine the FGDC Standards the FCC plans to use.
I) FSA - Farm Service Agency	Cadastral Subcommittee. Base Cartographic Subcommittee.	Yes. FSA prepared a GIS Implementation Blueprint and a 2003-2004 Acceleration Plan that laying out GIS Implementation for the Agency. In addition, in 2004 FSA began a major modernization project called MIDAS (Modernize and Innovate the Delivery of Agriculture Systems). This effort will carry out integration of tabular agricultural data (land ownership, historical crop data, conservation practices, etc.) with geographic spatial data in web-based in e-Government enabled GIS.	FSA provides FGDC compliant metadata for all nationally sanctioned geographic data created by the agency. All digital imagery meets National Map Accuracy Standards. FGDC compliant metadata for new digital ortho imagery is managed in the USDA Geodata Warehouse and is delivered with ortho imagery orders (this data will be available to GOS via a metadata service). FSA is currently using the content standard for geospatial metadata and will adopt framework data content standards under development by the GOS project when they are finalized. FSA, in a joint effort with other USDA Service Center Agencies, has developed geodata management standards specific to internal business needs.
J) FWS - Fish and Wildlife Service	Biological Data Working Group, Marine Boundary Working Group	Not at this time. FWS is working with other DOI personnel on the Enterprise GIS initiative and Geospatial Architecture, two efforts that will assist in developing this strategy. FWS will be writing an updated GIS Strategic Plan the first quarter of 2005.	The U.S. Fish and Wildlife Service has adopted FGDC Standards for its spatial data and metadata, namely the National Vegetation Classification Standard, the Content Standard for Digital Geospatial Metadata (CSDGM), and the Biological Profile of the CSDGM. The National Wetlands Inventory (NWI) data (see Part B) is a FGDC Standard data set, and the Service is actively updating and creating FGDC compliant metadata for other data layers, such as refuge boundaries and roads. The Service will continue to adopt and use FGDC standards whenever they are applicable.
K) GSA - General Services Administration	GOS, FGDC Facilities Working Group, Federal Real Property Council (FRPC)	No. Currently no PBS business processes are supported by geospatial data. A Geospatial Strategic Plan is being developed by the Public Buildings Service to support requests for facility location data from Homeland Security organizations. As a member of the Federal Real Property Council (FRPC), PBS is participating in the development of the Government-Wide Real Property Information System, which has identified certain geospatial elements that may be included in the database.	GSA PBS has been involved with the Tri-Services CAD/GIS Technology Center for Facilities, Infrastructure, and Environment (CTCFIE). American National Standards Institute's (ANSI) Committee for Information Technology Standards has approved the CTCFIE's Spatial Data Standard for Facilities, Infrastructure, and Environment as ANSI standard NCITS 353. GSA PBS is incorporating requirements for compliance to addressing standards for the consistent and accurate conversion of location addresses to geocoded locations.

FGDC Member Agencies	1) Subcommittee/Working Group Participation	2) Strategy	3) Compliance
L) HHS - Health and Human Services	Cultural and Demographic	Yes. The Department has completed a project to do this. An example is a management plan for the Agency for Toxic Substances and Disease Registry GIS that integrates the activities of the GIS program into the overall enterprise architecture and management. The program is integrated within the enterprise systems catalog at CDC. The information technology aspects of the program have undergone the certification and accreditation process. A business continuity plan has been developed and tested.	The HHS modified the HHS Meta Directory in a format that conforms to the FGDC Content Standards for Digital Geospatial Metadata (CSDGM), version 2.0, 1998, accessible as XML and HTML documents in a Web accessible directory. HHS plans to add new metadata as it becomes available.
M) NARA - National Archives and Records Administration	None.	NARA does not conduct spatial data activities. Geographic and other spatial data is received from other agencies as permanently valuable records accessioned into the National Archives. NARA's major strategic initiative for addressing all types of data is the Electronic Records Archives Program. The Program has contracted for design of an Electronic Records Archives system which will include spatial data ingest, storage and dissemination capabilities.	NARA's spatial data holdings are in the formats imposed on them by their originators. Given that NARA preserves these data as records, we preserve them in the format received. However, for new transfers of spatial data, NARA regulations at 36 CFR 1228.270(d)(3) require conformance with the Spatial Data Transfer Standard (SDTS). These regulations also endorse the use of Federal Geographic Data Committee's Content Standards for Digital Geospatial Metadata for documenting transfers of spatial data (CFR 1228.270(e)(2)).
N) NASA - National Aeronautics and Space Administration	NASA participates in the following FGDC Subcommittees: Geologic Data, Soil Data, Vegetation. NASA participates in the following Working Groups: Biological Data, Clearinghouse, Earth Cover, Standards, Sustainable Forest Data, Homeland Security, Civil Imagery and Remote Sensing.	The following NASA strategies exist: Global Change Master Directory, NASA Earth-Sun Mission Statement on Data Management, NASA Earth-Sun Mission Applied Sciences Program, Geospatial Interoperability Office (GIO) coordinates agency-wide FGDC and Geospatial One Stop participation.	NASA is completely compliant with FGDC standards and NASA's public data can be viewed in FGDC format if desired. NASA participates in Framework Standards development through the standards bodies and partner agencies work. NASA uses FGDC Content Standard for Digital Geospatial Metadata, Remote Sensing Extensions for FGDC Metadata, and FGDC Swath Content Standard.
O) NGS - National Geodetic Survey	Base Cartographic Data Subcommittee, Cadastral Subcommittee, Marine and Coastal Spatial Data Subcommittee, Marine Boundaries Working Group, Standards Working Group	The collecting, processing, archiving, and distribution of spatial data are the principal activities of the NOAA's National Geodetic Survey (NGS). The business process of the agency and these activities are one in the same.	NGS's pertinent data holdings will be compliant with the Geodetic Data Content Standard. The draft Shoreline Data Content Standard has been developed and is undergoing internal review. Other standards in use are: Geospatial Positioning Accuracy Standards, Part 1: Reporting Methodology; Geospatial Positioning Accuracy Standards, Part 2: Standards for Geodetic Networks; Spatial Data Transfer Standard (SDTS) Part 6: Point Profile; Metadata Profile for Shoreline Data
P) NRCS - National Resources Conservation Service	Subcommittees: Base Cartographic Data (inactive), Geologic (inactive), Spatial Water Data, Vegetation, Wetlands. Working Groups: Biologic Data, Homeland Security (minimal involvement), Earth Cover (inactive).	Yes. To support timely access and appropriate use, the agency has incorporated spatial data into most program management strategies as well as the NRCS Integrated Information System which encompasses critical software applications and data distribution. Detailed plans addressing data delivery, system architecture, USDA data standards and GPRA goals have been developed. The combined USDA Service Center Agencies (NRCS, RD, FSA), have developed the USDA Service Center Agencies GIS Implementation Strategy, 2001. See http://fgdc.ftw.nrcs.usda.gov/gateways.html	FGDC Standards used by NRCS: Content Standard for Digital Geospatial Metadata, Soil Geographic Data Standard, Content Standard for Digital Orthoimagery. NRCS is implementing a standard not yet endorsed by FGDC: Federal Standard for Delineation of Hydrologic Unit Boundaries. USDA/NRCS and the USDA Service Center Agencies have developed standards specific to internal business needs. NRCS will adopt the framework data content standards where appropriate and will continue to collaborate on elevation, orthoimagery and watershed boundary data. NRCS uses other national and international standards where appropriate and USDA is a member of the International Committee for Information Technology Standards.

FGDC Member Agencies	1) Subcommittee/Working Group Participation	2) Strategy	3) Compliance
Q) TVA - Tennessee Valley Authority	TVA participates in subcommittee and working groups on a correspondence basis as needed. TVA is participating in the Homeland Security Working group and is co-lead on the FGDC Restructuring Action Team	TVA has taken several actions to coordinate geospatial data activities, but there is no formally adopted strategy. TVA supports a geospatial metadata clearinghouse node, is collecting metadata according to the FGDC standard, and has an operational Internet site through which we distribute and sell geospatial information. The Internet site maps.tva.com operates from our data base of geospatial metadata. TVA metadata is accessible through the Internet site and Geospatial One Stop. We also have a GIS Coordinating Council that operates on a technical level to coordinate geospatial data issues. All business processes, including those dealing with geospatial data are being documented at TVA.	TVA is using the geospatial metadata standard to document our data sets. TVA developed Digital Raster Graphic's (DRG) according to the USGS standard. TVA uses commercial standards or national mapping standards whenever possible. For example, we are developing Wetland data according to National Wetlands Inventory standards in a cooperative program with the National Fish and Wildlife Service.
R) USGS - U.S. Geological Survey	Subcommittees: Cadastral, Cultural and Demographic, Federal Geodetic Control, Ground Transportation, International Boundaries and Sovereignty, Marine and Coastal Spatial Data, Soils, Vegetation, Wetlands. Working Groups: Clearinghouse, Facilities, Geospatial Applications and Interoperability, Historical data, Marine Boundaries, Metadata, Sample Inventory and Monitoring of Natural Resources and the Environment, Standards, Tribal	Yes. The USGS is actively participating in the development and implementation of the DOI Enterprise Architecture and the DOI E-Government Strategy which both focus on the integration and alignment of geospatial data and geospatial technologies with key mission/business processes. In August 2004, the USGS undertook a significant reorganization that will integrate the management and direction of several major USGS-led geospatial data programs into one bureau-wide program office. Management and direction of The National Map, the FGDC Secretariat, the Geospatial-One Stop E-Government project, and the DOI Enterprise Geographic Information Management project will now be provided through the USGS National Geospatial Programs Office. (See agency response for more.)	USGS complies with the FGDC strategy and guidelines found in OMB Circular A-16 to employ FGDC standards when collecting geospatial data. The USGS also actively participates in the development of international and national geospatial data standards, consistent with OMB Circular A-119., USGS Programs employ FGDC guidance and collect new data in compliance with appropriate standards including data content standards and metadata standards. USGS has lead responsibility for development of three national Framework data standards: elevation, digital orthoimagery, and hydrography. (Please see agency response for complete list of standards used)

FGDC Member Agencies	4)Performance Measures	5) Redundancy
A) BLM - Bureau of Land Management	Did not answer.	The BLM primarily uses local contacts and data sharing partnerships to determine if the data exists or not and prevent duplication of effort. Many local data providers, especially for cadastral data are known but are not listed and/or do not provide data through Geospatial One-stop.
B) DOC - Department of Commerce - Bureau of the Census & National Oceanic and Atmospheric Administration	Did not answer.	The Census Bureau maintains direct contact with more than 40,000 State, local, and tribal governments and takes full advantage of local information. Census maintains close contact with other agencies that have an interest in geographic data and collaborates with them in collection. NOAA's Coastal Services Center searches it's archives and that of its parent organization, in addition to Internet and FGDC Clearinghouse searches to ensure that redundancy does not occur. NOAA's National Geodetic Survey coordinates data collection activities with its federal partners through the FGDC Subcommittee and works with State and local entities in the collection of geodetic survey data to ensure that no redundancies exist.
C) DOD - Department of Defense (Installations & Environment)	The FY05 DISDI Strategic Plan will detail performance measures for spatial data activities relevant to the DoD business domain	The DISDI Office is drafting DoD policy that will mandate use of the Geospatial One-Stop portal at www.geodata.gov prior to ensure all existing federal geodata resources are examined prior to new data acquisition.; Once new geodata is acquired, significant emphasis is being placed on establishing new business processes to sustain the data quality.
D) DOD - NGA - National Geospatial-Intelligence Agency	Yes. NGA's core business is geospatial intelligence. The primary focus is intelligence and combat support and is mostly non-domestic. Performance measures are for internal use and do not contribute to NSDI.	Geodata.gov is reviewed during data/source acquisition within the P directorate with responsibility for Homeland Security support. NGA's core business is geospatial intelligence. The primary focus is intelligence and combat support and is mostly non-domestic.
E) DOD - USACE - U.S. Army Corps of Engineers	Each Command is required to submit with their annual budget request a form signed by the District/Division Commander that prior to a data acquisition a search of the FGDC Clearinghouse is performed. For Satellite Imagery, Commands are required to check the DoD Commercial Satellite Imagery Library (CSIL) to see whether DoD has already purchased Imagery that could be used. At the request of HQ USACE, some USACE District offices have posted planned data collection activities to the GOS Module 3 web site. Once FGDC has developed a long term strategy for GOS Module 3, USACE will establish a procedure for all data collects to be posted.	USACE has policy in place that ensures the NSDI Clearinghouse is checked prior to acquiring any new data.

FGDC Member Agencies	4)Performance Measures	5) Redundancy
F) DOT - Department of Transportation	With the exception of the Office of Pipeline Safety (OPS), most modal administrations do not currently have performance measures for spatial data activities. Performance measures for transportation industry participation in Geospatial One Stop are in the early conceptual stage of development. The OPS has developed performance measures for Capital Planning and Investment Control purposes (Exhibit 300). These performance measures relate to E-gov activities and compliance and do not contribute to the development of the NSDI.	Currently, use of the GOS portal is not part of the business enterprise of each modal administration. This will change as the portal matures and gains greater use. Until this happens, with a few exceptions modal administrations are ensuring, through other means, no data redundancy. For example: FAA conducts extensive searches of private and government sources to ensure redundancy does not occur. BTS surveys other Federal and state transportation agencies to ensure that the identified data of interest does not already exist. BTS also considers whether another agency is planning to create the database in the near future.
G) EPA - Environmental Protection Agency	1. 100% of EPA Regional and 50% of Program Offices are Geospatial Data Index Partners in 2005; 2. 70% of identified data/metadata sets in GDI inventory are FGDC compliant in 2005; 3. 70% of all FGDC compliant data/metadata are in the public area and serachable through EPA's NSDI clearinghouse node.	Since FY04 EPA has been posting any significant geospatial data acquisitions to the Geospatial One-Stop Data Mart.
H) FCC - Federal Communications Commission	The FCC does not have performance measurements for spatial data.	Our geospatial data is obtained as part of the licensing of telecommunications facilities and thus is unique to the facility. The data is supplied by the applicant for a telecommunications facility. This data is not available from other sources.
I) FSA - Farm Service Agency	FSA recently joined with USGS to establish joint performance measures in their imagery acquisition activities. These are Outcome Measure and Cost Avoidance Measure (see report for more detail).	FSA has managed farm field boundaries in a manual mapping environment for decades and has flown aerial photography for compliance purposes since the 1970s. This data has been an authoritative source for local governments in rural areas. FSA works in partnership with national, multi-agency coordination groups including the National Aerial Photography Program and the National Digital Ortho Photography program. FSA has partnered with several Federal and State Agencies for digital compliance. In 2004, 10 Federal, State and local agencies partnered with FSA in NAIP to purchase 1 meter replacement imagery.
J) FWS - Fish and Wildlife Service	Did not answer.	The U.S. Fish and Wildlife Service maintains a web site that points to the NSDI, as well as many current data sources. This web site is maintained to make it easier for staff to search and locate existing resources prior to collecting new data. A number of partnerships have been developed with other federal agencies, states and local governments, and non-government organizations for the purpose of coordinating geospatial activities, including data collection, with the goal of eliminating redundant efforts.
K) GSA - General Services Administration	No. As its geospatial strategic plan is developed and implemented, PBS will develop performance measures for geospatial data activities.	GSA Public Buildings Service (PBS) maintains the system of record for PBS facility addresses. For other data GSA will rely on readily available data sets.

FGDC Member Agencies	4)Performance Measures	5) Redundancy
L) HHS - Health and Human Services	Performance measures for spatial data activities exist only at the level of Centers or Programs involved in GIS. Below are some performance measures for the National Center for Environmental Health (NCEH). Measure: Apply Information Technology (IT) architectural standards to increase compatibility and interoperability both internally and with partners' systems at the federal, state, and local levels. Target: Install the Public Health Geography Network (PHGN) on the Internet and make it available to external CDC/ATSDR partners for publishing and sharing of Maps, spatial data sets and GIS Metadata. (See individual response fo more detail)	Some parts of HHS search the GOS Portal to identify other sources of data to be applied to their GIS application.
M) NARA - National Archives and Records Administration	Performance measures are defined in terms of NARA's mission for the lifecycle management of federal records. They do not distinguish records containing spatial data from other types of records.	N/A. NARA holdings of spatial data come from other agencies.
N) NASA - National Aeronautics and Space Administration	NASA sets internal performance measures and shares all it's public data with the NSDI through harvestable nodes.	Program Formulation activities for new missions (new data-gathering spacecraft) include assessments of need for the data to be collected. NASA participates through the International Committee on Earth Observations Satellites (CEOS), the National Research Council and FGDCs, Civil Imagery and Remote Sensing Working Group and Geospatial One-Stop to ensure that planned acquisitions contain data not already available.
O) NGS - National Geodetic Survey	Yes. Percentage of U.S. counties rated as enabled or substantially enabled with accurate positioning capacity. Twenty-five percent are currently substantially enabled, with target goal 90% enabled by 2011. The local capacity for accurate positioning is fundamental to reliable geographic data.	NGS uses geodata.gov for imagery to assist in shoreline mapping. NGS coordinates data collection activities with its federal partners through the Federal Geodetic Control Subcommittee (FGCS) and works jointly with state and local entities in the collection of geodetic survey data. The FGCS website hosts the Federal Survey: http://www.ngs.noaa.gov/FIELDOPS/opsplan.html
P) NRCS - National Resources Conservation Service	Yes. Performance measures for "spatial data activities" are woven into performance measures for agency programs. For example, the NRCS Strategic Plan (see http://www.nrcs.usda.gov/about/spa/documents/2000_Strategic_Plan.pdf) identifies Objective 4.3 – Ensure timely, science-based information and technologies. Encompassed in this objective are performance targets such as " By 2008, a total of 2,800 soil surveys will be available in digital form, making interpretations of soil survey information easily accessible to our customers, partners, and other users." The NRCS 2004 Business identifies goals for the acquisition and or development of soil surveys, orthoimagery and elevation datasets specifically. Within the plan several efforts such as Conservation Effects and Assessment Program (CEAP) are noted and rely heavily on spatial data, though those datasets may not be specifically cited in the business plan since thei availability is implied. In response to out-sourcing in NRCS, detailed performance measures have been developed for the delivery of data to agency offices and partners.	Yes, NRCS relies upon a variety of communication tools including geodata.gov to determine the availability of existing datasets.

FGDC Member Agencies	4)Performance Measures	5) Redundancy
Q) TVA - Tennessee Valley Authority	TVA does not have formal performance measures with target objectives tied to geospatial data activities. We do however track the number of projects for which metadata has been prepared. This contributes to the development of the NSDI by increasing the number of projects documented and publicized. By creating an audit of the percentage of projects that are being documented, poor performance can be included in individual performance reviews.	Prior to collecting new data, TVA checks with other local, state and federal agencies whom we think may have data or be interested in cooperating with us. TVA participates in several coordinating councils in the region and professional societies. We also use the digital geospatial metadata clearinghouse and the Geospatial One-Stop portal to check for existing data. Often our professional contacts provide more information than the clearinghouse.
R) USGS - U.S. Geological Survey	USGS has several performance measures that contribute directly to the development of the NSDI. # of new NSDI Clearinghouse nodes established for serving data (FY 2008 Target: 25), # of informal NSDI conference outreach exhibits (FY 2008 Target: 50), # of new NSDI standards developed (FY 2008 Target: 2), # of new NSDI partnership agreements (FY 2008 Target: 150). USGS also has many other performance measures, tied to science mission program activities that also indirectly help support geospatial data activities across the bureau. All USGS performance measures are provided in the FY 2004 Annual Performance and Accountability Report (http://www.doi.gov/pfm/burrept.html).	Yes.

FGDC Member Agencies	6) Collection	7) Clearinghouse	8) Planned Investments
A) BLM - Bureau of Land Management	Yes for cadastral survey data. However, the BLM also has tools and contract mechanisms to convert data to the FGDC standards should the data be collected for other sources/contracts.	Did not answer	Did not answer.
B) DOC - Department of Commerce - Bureau of the Census & National Oceanic and Atmospheric Administration	Yes where applicable. For example: all data development contracts/grants at NOAA's CSC require the contractor/grantee to develop metadata that meet FGDC guidelines or to provide CSC with information needed to develop such metadata. At NOAA's NGS, all Statements of Work include requirements to meet the pertinent NSDI standards, the cost of which is covered by the contractor's cost estimates.	Yes. Until recently Census has forwarded its metadata to the USGS for maintenance on their server. Census is currently building a NSDI compliant server outside its firewall that will hold public metadata and some Census data. Geodetic metadata are available via the Federal Geodetic control Subcommittee and the NOAA CSC website. NGS data are available from the NGS website and will be published on the Clearinghouse as part of the Geo 1 Stop effort. NOAA's CSC has a registered NSDI clearinghouse node and there is a NOAA Clearinghouse for called NOAA Server with hosts 14 additional data clearinghouse nodes.	Did not answer.
C) DOD - Department of Defense (Installations & Environment)	The DISDI Office is drafting DoD policy that will mandate all geodata acquisition contracts will include capture and reporting of FGDC CSDGM-compliant metadata.	The Deputy Under Secretary of Defense for Installations and Environment is presently engaged with the National Geospatial-Intelligence Agency and the DoD Chief Information Officer to adjudicate which existing geospatial data and/or metadata associated with DoD business domain operations should be published on the NGA Geospatial One-Stop and OMB Geospatial One-Stop servers.; The DoD intent is maximize use of the DoD geospatial data holdings across the DoD through the NGA Geospatial One-Stop architecture, and subsequently to the OMB Geospatial One-Stop architecture, assuming such sharing carries no inordinate risks to national security.	The Deputy Under Secretary of Defense for Installations and Environment (DUSD/I&E) is presently engaged with the National Geospatial-Intelligence Agency and the DoD Chief Information Officer to adjudicate which planned geospatial data investments associated with DoD business domain operations should be published on the NGA Geospatial One-Stop and OMB Geospatial One-Stop servers.; The DoD intent is to is maximize shared acquisition of geospatial data and imagery for DoD business domain operations, whenever possible, with public and federal partners.; Such geodata investment partnerships have taken place at the installation level through local agreements between co-located military installations and metropolitan authorities and regional planning agencies.
D) DOD - NGA - National Geospatial-Intelligence Agency	NGA is an active participant in the geospatial standards development and is converging on ISO/ANSI standards as is NSDI. NGA will provide standard metadata to GOS in FGDC (NSDI) format. Again NGA's core business is geospatial intelligence. The primary focus is intelligence and combat support and is mostly non-domestic.	NGA is reviewing domestic data for releasability. Barriers include national security concerns (see OMB Circular A-16, Paragraph 7) and contractual restrictions on certain data/products. As data passes releasability constraints it will be shared through GOS. (Note: As appropriate domestic data from NGA is also shared through MOA with Department of the Interior).	NGA is reviewing domestic data for releasability. Barriers include national security concerns (see OMB Circular A-16, Paragraph 7) and contractual restrictions on certain data/products. As data passes releasability constraints it will be shared through GOS. (Note: As appropriate domestic data from NGA is also shared through MOA with Department of the Interior).
E) DOD - USACE - U.S. Army Corps of Engineers	USACE position is that the cost of metadata and building the data to standards are part of the data collection and should not be a separate cost. USACE has policy in place stating this position	USACE has had an operational NSDI Clearinghouse Node in place since 1995. Approximately 1/3 of our District offices appear to be actively engaged with the Node. Barriers to using the Clearinghouse are: 1) the Clearinghouse technology is old and does not appear to be moving forward, 2) approximately 25% of the Nodes are not functioning and 3) the metadata found on Nodes is outdated and not maintained.	Through the NDEP web site USACE intends to post potential elevation collection activities. By focusing on one data theme, USACE hopes to be more successful in identifying potential data acquisition overlaps. Elevation data has the most potential for reuse and partnering.

FGDC Member Agencies	6) Collection	7) Clearinghouse	8) Planned Investments
F) DOT - Department of Transportation	Because most GIS programs and their GIS products at the DOT are small, specialized, independent, and developed through gradual and piecemeal efforts, a coordinated review of compliance to NSDI standards has not been undertaken. Compliance reviews will occur as these programs mature and other supporting efforts, like GOS, come on line. BTS data collection efforts include costs for complying with NSDI standards. FAA adheres to certain geospatial standards.	Some geospatial data at the DOT may not be published on the NSDI Clearinghouse. This is due to the fact that many of these efforts are small in scope, budget and impact since. Data that is maintained and distributed by BTS is published on the NSDI Clearinghouse. Some of the data available through the clearinghouse is maintained by other modal administrations. None of the RSPA/OPS data is available to the public. FAA data that is funded through public sale is not distributed free on the Internet to the public sector.	BTS has posted two data collection projects on the portal. Other modal administrations are planning to use the portal for this purpose as the portal and their GIS programs mature.
G) EPA - Environmental Protection Agency	No.	No. Most data are not fully compliant with the FGDC metadata standard. Inadequate time and resources committed to tagging data with the required information at the time of development are the largest barriers to becoming fully compliant.	Yes.
H) FCC - Federal Communications Commission	The FCC does not issue contracts and grants to acquire geospatial data.	Yes.	The bulk of the Commission's geospatial data collection (> 99.99%) is derived from applications for authority to construct and operate telecommunication's facilities. All the applications have a geospatial component which identifies where the facility is to be located and the area served. The Commission does / has acquired some geospatial data which defines political boundaries, land usage, topography, etc., which is needed in evaluating applications and conducting rulemakings.
I) FSA - Farm Service Agency	Yes. FSA contract specifications for geodata acquisition include requirements for information that will be used for FGDC compliant metadata.	FSA has posted theme metadata on Geodata.gov and is planning to make the metadata harvestable by GOS via a metadata service. Barriers have included a lack of resources that can be dedicated to the task. FSA geospatial data is currently available via the USDA Geospatial Data Gateway. The Gateway is one of the data access points for agriculture data at the Gedoata.gov portal.	FSA has posted planned investment information on Geodata.gov Marketplace. In addition, FSA has also posted this information on the NDOP web site, which in turn, links to/from the GOS site.
J) FWS - Fish and Wildlife Service	Yes. At this time, the only significant cost for a standard is metadata creation.	FWS data and metadata are available on the Internet. FWS is updating and creating refuge boundary metadata files for publication on the NSDI and NBII Clearinghouses. Insufficient staff, funding and computing resources have been the primary barriers to establishing an NSDI node for any FWS data other than the NWI.	Did not answer.
K) GSA - General Services Administration	Not at this time. However, GSA PBS contracts routinely contain clauses defining standards for data collection and submittals.	Not at this time. Development of a framework for the sharing of data will be discussed in the PBS Geospatial Strategic Plan. Also, available data and security concerns raised by having the data published are under examination.	Currently, PBS has no business case requirements for Geospatial information. The PBS Geospatial Strategic Plan will discuss the planned investments and the phasing of the effort to maximize leveraging of partnerships and investments.

FGDC Member Agencies	6) Collection	7) Clearinghouse	8) Planned Investments
L) HHS - Health and Human Services	HRSA acquisitions and grants have not involved spatial data collection and, therefore, do not include costs for following and adhering to National Spatial Data Infrastructure (NSDI) standards.	Last year HHS noted a project to serve FGDC conformant metadata for use in the NSDI Clearinghouse using the "GEO" Profile of the Z39.50 "Search and Retrieval" Protocol through connection of a Z39.50 server to the Meta Directory database. That project has been completed. HHS now has the capability to serve FGDC conformant metadata. At present, HHS is doing so in a test mode in order to perform a final content check.	For the NCHSTP Global Aids Program (GAP), data collated by WHO on their behalf could be made available to the Clearinghouse. Funding and staff for this effort would be the main barriers encountered
M) NARA - National Archives and Records Administration	N/A	NARA currently has no spatial data available on line.	N/A
N) NASA - National Aeronautics and Space Administration	Yes.	All datasets NASA makes publicly available are published in the Global Change Master Directory (GCMD) Clearinghouse node.	Yes.
O) NGS - National Geodetic Survey	Yes. Statements of work include requirements to meet the pertinent NSDI standards, the cost of which is covered by the contractor's cost estimates	Metadata are available via the Federal Geodetic Control Subcommittee and the NOAA Coastal Services Websites. The NGS data are available from the NGS Web site. Both data and metadata will be published on the NSDI Clearinghouse as part of the Geospatial One-Stop effort.	Not yet. GOS Module 3 planned data acquisition facility does not yet appear to in operation. Guidance is needed.
P) NRCS - National Resources Conservation Service	No. For the most part, generating data adhering to pre-defined standards is considered part of the data development process and not itemized separately in contracts. Contracts and grants specifically define the quality expectations and as a result the required adherence to standards is documented. In the past, NRCS responded yes to this question. Upon review this year, it was noted that the question specifically asked for "cost for following" standards. Though NRCS makes every effort to document adherence to standards, the contracts do not document the actual cost of doing so. Contracts and agreements state the final product will adhere to a standard and cost estimates are assumed to reflect that fact.	No. NRCS generates several program specific datasets that are available from NRCS websites but not discoverable via the Clearinghouse. Under the following circumstances, data may not be discoverable on the clearinghouse - lack of FGDC compliant metadata, localized/project specific data that has not been maintained, data privacy issues and/or inability to provide long-term support for users of data. NRCS, FSA and RD support the delivery of geospatial data to USDA agencies via the Natural Resources Data Gateway. http://datagateway.nrcs.usda.gov This site is linked directly to Geodata.gov.	Yes, where the budget information is available and can be shared with the public. Primary focus is on the national funding initiatives that NRCS participates in such as orthoimagery (NDOP), elevation (NDEP), hydrologic unit boundaries and soils data. Acquisitions of elevation data are shared with NDEP which is linked to geodata.gov. NDOP is working on a similar effort to share information more seamlessly with geodata.gov. NRCS is a member of both NDOP and NDEP. Status of soils data development and watershed boundary data is available via the Natural Resources Data Gateway.

FGDC Member Agencies	6) Collection	7) Clearinghouse	8) Planned Investments
Q) TVA - Tennessee Valley Authority	Generally yes, but standards do not exist for many data requirements. Commercial practices are used more than FGDC standards.	No. TVA has historical data for which FGDC compliant metadata has not been collected. Funds are not available to prepare metadata for all our historic holdings, but we will develop metadata as these data sets are added to our Internet site. For example, several hundred historic products (1930's planimetric maps) were documented in FY04.	TVA has not published plans to invest in geospatial data on the Geospatial One-Stop. This is due to the project specific nature of our work, business sensitivity issues, and time requirements. We plan to start publishing some of our planned acquisitions in FY 05.
R) USGS - U.S. Geological Survey	Yes. Procurements and contracts for data or data services specify compliance with appropriate ANSI and FGDC Standards. Contracts for data include the full cost of creating compliant data using appropriate standards; also providing the metadata and registering the data online.	Yes. All the geospatial data that USGS programs produce that have been reviewed and approved for public use are published on the NSDI Clearinghouse. Some data sets are also "published" by posting to a local website. Working copies of some scientific data might not be made publicly available.	Yes.

FGDC Member Agencies	9) Geodata.gov	10) E-Gov	11) Geospatial 1 Stop (GOS)
A) BLM - Bureau of Land Management	Did not answer.	Did not answer.	Developed the cadastral standard for Geospatial One-Stop and are channel stewards for cadastral data.
B) DOC - Department of Commerce - Bureau of the Census & National Oceanic and Atmospheric Administration	Did not answer.	Many of DOC's projects are E-gov applications. The National Ocean Service (NOS) Enterprise Geographic Information System project will include all NOS geographic data for both internal and external users. NOAA's CSC Coastal Hazards projects are an E-Gov application that work to reduce the environmental, costal, and economic impacts from coastal hazards and facilitate increased decision-support capabilities for coastal managers. NGS's E-gov activities include: Web access to geodetic control data sheets, web access to GPS Continuously Operating Reference Station data, and web-based On-line User Positioning Service. Census has QuickFacts, American FactFinder, Tiger/Line files, and FedStats (see DOC report for web addresses)	Lead agency for the Governmental Units Framework Data Content Standard; Lead agency developing Geodetic Data Content Standard, I-Team participation; Principal partner in GOS; NOAA's CSC is coordinating the objectives of the GOS to the FGDC Marine and Coastal Spatial Data Subcommittee and the Marine Boundary Working Group; CSC is working with the FGDC Cadastral Subcommittee on developing the marine component of the Cadastral Data Content Standard; along with in-kind contribution, DOC has also transferred funds to the project in FY03
C) DOD - Department of Defense (Installations & Environment)	The DoD intent is to have all geospatial data and metadata for the business domain first be posted to the NGA GOS server; NGA would carry responsibility for exposing appropriate DoD geospatial data/information holdings from the NGA GOS server to the GOS server	The DoD intent is to use the new Defense Installation Spatial Data Infrastructure (DISDI) as a new enterprise-wide focal point for DoD missions to employ when in need of installations and environmental missions geospatial information resources. After less than five months of operation, the DISDI is being used to directly support the following missions: Base Realignment and Closure, Environmental Planning, Range Planning, Installation Management (USA, USN, USMC, USAF, NGB), Anti-Terrorism/Force Protection, Expeditionary Base Planning, and Homeland Defense	The DoD intent is to ensure that our responsibilities as cited in the 2002 revision of OMB Circular A-16 are fully satisfied. ; Compiling a single DoD response to the GOS mandates will require new partnerships between NGA and the DoD business domain as well as new data sharing policies since the comprehensive DoD geospatial data holdings include both classified and unclassified sources.
D) DOD - NGA - National Geospatial-Intelligence Agency	Spring 2005	NGA's core business is geospatial intelligence. The primary focus is intelligence and combat support and is mostly non-domestic. NGA is deeply involved in research and development of new and innovative ways to improve use of geospatial data.	NGA is a funding partner. In addition to direct resources NGA provides Full Time Equivalent support, both contractor and government, for GOS acquisition, development, Exhibit 300 development, usability studies and NGA interface to GOS.
E) DOD - USACE - U.S. Army Corps of Engineers	The USACE Clearinghouse Node will be registered with the geodata.gov harvester by 30 January 2005.	USACE has developed a public map website for the National Inventory of Dams and for information on USACE's projects (Digital Project Notebook). USACE will be developing a web mapping interface to capture regulatory permit requests from the public.	USACE has identified a Geospatial One Stop POC and is identified in the Exhibit 300. 100K of 2004 funds were sent to USGS to support GOS Module 3. Signed GOS DoD MOA and a GOS MOA with USGS.

FGDC Member Agencies	9) Geodata.gov	10) E-Gov	11) Geospatial 1 Stop (GOS)
F) DOT - Department of Transportation	Yes, the DOT's geospatial data, distributed by BTS, is available on the Clearinghouse node and registered for harvesting.	BTS has developed an interactive Internet mapping center that allows user to evaluate highway conditions, and railroad crossing safety. Additionally, the geospatial data is available for download from the BTS web site. FRA's web site "http://safetydata.fra.dot.gov/maps/" publishes grade crossing safety information. FTA is using geospatial data to analyze population density. Within FAA, geospatial data is an integral and critical part of the air transportation information provided to the flying community and is part of its standard practice. (For more examples see DOT report)	BTS is funding the development supporting documents to serve as an implementation guide and business cases for GOS. BTS continues leading the development of the transportation theme standards. OPS has posted metadata for all geospatial data to GOS and FAA, FTA, FHWA and FRA are participating with BTS in the development of transportation standards for the GOS.
G) EPA - Environmental Protection Agency	Yes. The Enviornmental Information Management System is the EPA Clearinghouse node and is registered on geodata.gov for scheduled harvesting visits by GOS. Over 400 EPA data sets are harvested by GOS.	E-Gov supports 19 areas of business: Development of Criteria; Development of Methods and Protocols; Provision of Public Information/Trend Analysis; Development of Policies; Monitoring; Program Implementation Oversight; Development of Regulations and Guidance: Permitting; Compliance and Enforcement; Emergency Response: Research; Performance Measurement; Site Clean-up; Setting of Standards; Grant/Contract Implementation and Oversight; Laboratory Activities; Risk Assessment; Training; and Procurement. (see EPA report for specific examples)	EPA is a primary player in the GOS effort and participated in crafting the GOS business plan and EPA is supporting the initiative with both funding and in-kind FTEs in FYs 2002-2005. The EPA GIO is a member of the GOS Advisory Board and EPA staff manage the Enviornment and Conservation Channel on the GOS Portal. (see EPA report for more)
H) FCC - Federal Communications Commission	At the present time, the FCC does not have metadata for its licensing system databases on the Clearinghouse Node. However, we have documentation on these systems on the FCC's website. We plan to create FGDC compliant metadata for these licensing databases.	To protect radio telecommunications facilities from harmful interference, frequency coordinators need to know the location of facilities which need to be protected from interference; To comply with the RF Safety rules, licensees and potential licensees need to be able to identify and take into consideration other radio facilities located nearby; The Commission is statutorily required to make sure that antenna structures comply with FAA air safety rules and regulations which requires the use of FAA databases which identify the location and orientation of airport runways; The Commission is also statutorily required to make sure that licensees comply with the various Environmental and Historic Preservation acts.	We are closely following the progress of Geospatial One-Stop and are trying to determine how we best fit into the process.
I) FSA - Farm Service Agency	FSA expects to have a metadata service harvestable by GOS available in September 2005.	FSA has an in-house and outsourcing effort in place to digitize the Common Land Units (CLU) and expects that the lower 48 states and HI will be completed in FY 2005. Base imagery for Alaska and Puerto Rico will be delivered in FY2005 and the digitizing effort in these areas will begin shortly thereafter. Updated base imagery (MDOQ) is critical for program implementation and is part of the NAIP acquisition strategy, which in turn, is contingent on sufficient funding.	FSA participates as a funding partner in the USDA-Agencies contribution. USDA also provides a channel steward.
J) FWS - Fish and Wildlife Service	Did not answer.	An Interactive Map Server serves endangered species critical habitat data. Migratory bird databases, including relevant geospatial data, are served through the Bird Conservation Node. FWS has developed seamless wetlands Master Geodatabase with online map viewing and digital data/metadata download capabilities to better serve the NWI data set to GIS users. FWS's Environmental Conservation On-Line System (ECOS) also includes an Interactive Map Server and provides access to a number of databases and geospatial data layers.	The NWI data set is listed as a data set in the GOS. FWS has identified a representative to work on GOS activities. This rep is also a member of the DOI Enterprise GIS Team.
K) GSA - General Services Administration	Currently, PBS has no geospatial data or information holdings. The PBS Geospatial Strategic Plan will discuss the metadata requirements and the planned relationship to Geodata.gov.	Spatial data developed from standard location and address data for GSA facilities will provide consistent information for sharing (based upon security requirements) with other government agencies and services to meet their missions.	GSA actively supports GOS with outreach efforts to encourage active participation of state and local government officials in GOS. GSA is also participating on the FGDC Homeland Security Working Group's Public Access Subcommittee.

FGDC Member Agencies	9) Geodata.gov	10) E-Gov	11) Geospatial 1 Stop (GOS)
L) HHS - Health and Human Services	NIH/NLM: We are in process of submitting information about our GIS application to Geodata.gov. HRSA's geospatial and metadata assets have already been registered with the National Spatial Data Infrastructure (NSDI) Clearinghouse. Additionally, this information has also been registered and scheduled for harvesting visits through www.geodata.gov.	NCCDPHP publishes the Reproductive Health Atlas, Behavioral Risk Factors Surveillance Survey (BRFSS) Maps; Heart Disease and Stroke Maps; Oral Health Maps; and Global Youth Tobacco Surveillance (GYTS) Maps. Geospatial and Census data enable ATSDR to estimate populations that are impacted by hazardous waste sites. Integration of GIS within the operations of the CDC Director's Emergency Operations Center, enhances the ability of management to response to events such as the flu vaccine issues through linking information on location of high risk populations and number of vaccine doses in those areas. (see response for more examples)	CDC/NCEH/ATSDR: We post Web mapping services and geospatial data to Geospatial One-Stop. Channel steward, web postings by NCCDPHP. HRSA is a co-channel steward within the Geospatial One-Stop portal, and is available on the internet at www.datawarehouse.hrsa.gov.
M) NARA - National Archives and Records Administration	N/A	N/A	N/A
N) NASA - National Aeronautics and Space Administration	NASA's data has been registered on geodata.gov.	Gathering and disseminating Earth Science geospatial data is a principal function. Interoperability standards are being promoted as a way to improve data access. Landsat-7 produces 150 Gbytes of data per day, Terra spacecraft produces 194 Gbytes/day.	Ron Birk, Director Applied Science Program serves on the GOS Board of Directors. Myra Bambacus served as GOS Acting Executive Director and continues to support GOS. Dr. Jeff de La Beaujardiere served as Portal Manager. NASA's GIO Program participates in Channel Stewardship, Proposal functional requirements criteria and Open Standards and Web Services. NASA provides direct monetary contributions.
O) NGS - National Geodetic Survey	Yes, both geodetic control and shoreline data are available via Geodata.gov.	All aspects of the NGS primary mission of providing geodetic control for spatial reference are reliant upon geospatial data. Providing electronic access to spatial reference has improved the agency's delivery of geospatial data products and services, including: Web access to geodetic control data sheets, Web access to GPS Continuously Operating Reference Station (CORS) data, and Web-based On-line User Positioning Service (OPUS).	NGS is the lead agency involved in the development of the Geodetic Data Content Standard. NGS is also taking the lead in development of the Shoreline Data Content Standard. The NGS Survey Control Map, used for retrieving geodetic control data, and the Shoreline Data Explorer are accessible via the GOS Portal.
P) NRCS - National Resources Conservation Service	Metadata is currently available on the NRCS node and the NRCS node and Geospatial Data Gateway are registered on geodata.gov but metadata harvesting is not scheduled. The data on the node is dated and NRCS does not wish to have it harvested. We are working with the FGDC/GOS Metadata Coordinator to ensure that the public has access to our most current data while ensuring we support our internal business needs.	NRCS has identified major customer products and services which support E-government activities. Most rely upon or have a geospatial component to facilitate information retrieval and data analysis. The activities support the USDA E-government strategy. See www.egov.usda.gov for USDA strategy. Examples of NRCS applications supporting E-government: Customer Service Toolkit (CST) – conservation planning software tool; Resource Data Gateway – single point of access for geospatial information; Wetland Determinations Toolkit – supports update and tracking of wetland easement boundaries for restoration and planning; Land Evaluation and Site Assessment (LESA) - supports local resource decision making; Integrated Accountability System; and Soil Data Viewer. Geospatial data are a critical component of the NRCS Performance Results System and the Integrated Accountability System. Using these tools, agency leadership is able to refine strategic goals and better align NRCS services to meet customer needs.	NRCS staff person assigned as Agriculture Channel Steward. An NRCS staff person served as the standards lead for nine months in 2003. An NRCS staff person supported the integration of GIS into the enterprise architecture model in 2003. NRCS has provided in excess of 100,000 dollars to the effort.

FGDC Member Agencies	9) Geodata.gov	10) E-Gov	11) Geospatial 1 Stop (GOS)
Q) TVA - Tennessee Valley Authority	TVA's Clearinghouse Node is being harvested by Geospatial One-Stop harvester.	TVA uses a wide variety of geospatial data. Digital applications recently implemented or enhanced include: Intranet Web based interactive TVA Region Map for general planning activities; Intranet Web based interactive TVA Power System map for Transmission operations use; Intranet Web based interactive TVA Transmission System map for display of lightning strike data and other Transmission System asset information (MILES); Automated Lands Information System (ALIS) for the management of TVA reservoir properties; Integration of ALIS with Environmental review process (Heritage Program), Water Quality monitoring, and Land Acquisition and Disposal System (LADS); Aerial Photography Indexing system; Map and Photo Records Internet Site https://maps.tva.com/ for the distribution and sale of geospatial information; TVA Site http://www.tvasites.com/ for use in Industrial Development activities.	Metadata is being harvested. A project is in development to use OGC compliant web mapping services to distribute data.
R) USGS - U.S. Geological Survey	Yes.	Geospatial data are integral to virtually all of USGS science mission programs and activities. USGS provides public access to its geospatial data holdings in both electronic and printed form compliant with FGDC standards and guidance. Electronic copies, compliant with directives such as Section 508, are available via the world wide web or on other media. USGS ensures the preservation of its work in accordance with NARA archive and data preservation policies. Sustainable partnerships are continually sought that help reduce duplication of effort and ensure access and preservation of geospatial data and information consistent with mission responsibilities and requirements. The specific, individual ways the bureau uses geospatial data to provide better service are too numerable to list here.	USGS is a funding partner for Gos and also provides the technical support and management oversight, on behalf of DOI, for management/leadership of the GOS project. USGS has lead responsibility for development standards and data content for three of the national Framework data layers for GOS (elevation, digital orthoimagery, hydrography). USGS experts are serving as Channel Stewards for several channels on the GOS Portal, including biology and ecology, elevation, geology, inland waters, imagery and base maps. The USGS National Map initiative is collaborating with GOS and FGDC to provide competitive grants to assist in building the GOS.

FGDC Member Agencies	12) Enterprise Architecture	13) Partnerships	14) Lessons Learned
A) BLM - Bureau of Land Management	Did not answer.	Partnerships and data sharing are part of the way BLM does business at the local as well as regional and national levels. BLM has partnership agreements through the states with over 150 counties primarily in the western United States for cadastra data and has worked closely with NSGIC and NACo to share resources and responsibilities.	Did not answer.
B) DOC - Department of Commerce - Bureau of the Census & National Oceanic and Atmospheric Administration	Census uses geospatial data in all statistical data collection activities, tabulation operations, and publication activities. The foundation of Census geospatial data is TIGER. CSC is the co-lead on the National Ocean Service (NOS) Enterprise Geographic Information System project, which will develop a unified and coordinated enterprise approach to spatial information management, utilization, and access across NOS. NGS performs functions necessary for NOAA to attain its objective to "Develop the National Spatial Reference System (NSRS)" which is part of NOAA's strategic goal to "Promote Safe Navigation."	NGS has many partnerships to provide access to consistent and accurate spatial reference: Over half the States have a Geodetic State Advisor jointly funded by NGS and the State; 61 State, local, academic, private and federal agencies partner with NGS in providing GPS data from Continuously Operating Reference Stations; NGS accepts survey data from State and local orgainizations to be put in the NGS data base; NGS has local partnerships developing spatial reference centers in States, and to implement Height Modernization. Census has a long-standing policy of interagency cooperation, as well as cooperation with State, local, and tribal governments for data collection. CSC's Coastal National Spatial Data Infrastructure is one of the agency's 4 themes and through its many partnerships it engages coastal and marine customers and encourages participation in NSDI activities. NOAA's CSC partners directly with FGDC to provide metadata training to its partners.	Coordination: FGDC is limited to simply encouraging agencies to coordinate without authority to do more. There is no functioning method that has been institutionalized within individual agency operations for geospatial coordination. Consistency: The ability to smoothly integrate a point's coordinates with other points has been addressed by the promulgation of official national datums. Accuracy: Ability to achieve high levels (a few centimeters) of accuracy has been improved by employing GPS techniques developed by NGS. Timeliness: The longer it takes to accurately position a point, the greater the labor cost per point. Techniques, procedures, and best practices are being developed by NGS to reduce the time required to position a point accurately. State Legislation on Spatial Reference: Most State legislation was written in the era when classical line-of-sight surveying techniques were used but the use of GPS techniques has revolutionized surveying and some existing state legislation may be longer be relevant to current technology.
C) DOD - Department of Defense (Installations & Environment)	The DoD intent is to integrate geospatial data within the new DoD business enterprise architecture now being developed under the Business Management Modernization Program. The DISDI office was purposefully established within the DUSD/I&E Business Transformation directorate to ensure close coupling of DISDI capabilities with the business process reengineering effort.	Within the DoD business domain, each of the Military Departments and the National Guard Bureau have rapidly maturing geospatial information resource management programs that together comprise the DISDI framework; In turn, the DISDI office will be partnering with the National Geospatial-Intelligence Agency to yield a comprehensive DoD response to the OMB Circular A-16 mandates.; The DoD business domain through DISDI has joined the FGDC as a new member effective October 2004 to further federal partnerships; The DoD business domain through DISDI has begun discussions with the new National Geospatial Programs Office at the USGS to review existing and preferred MOUs to yield a more coherent, policy-based process for sharing DoD geodata with other federal agencies.	None.
D) DOD - NGA - National Geospatial-Intelligence Agency	Yes. NGA's core business is geospatial intelligence and the NGA enterprise architecture includes all of NGA's geospatial mission activities. NGA's Enterprise Architecture is a data centric construct. It provides a common understanding of data (geospatial and other forms) across communities of interest by identifying data that supports the agency's lines of business.	NGA has a formal MOU with USGS and FGDC (signed in July 2002) concerning our efforts in support of HS. This MOU outlines roles and responsibilities of respective agencies for data sharing and aims to support a number of other federal agencies and their customers with the Homeland Security Mission.	None.
E) DOD - USACE - U.S. Army Corps of Engineers	Yes. Geospatial data is the foundation for most of USACE's Science and Engineering modeling and system activities and therefore a critical part of the Enterprise Architecture.	The foundation of the USACE Civil Works program is partnering with state, local and regional organizations to 1) create synergy between water resources development and the environment and 2) Restore, manage and enhance ecosystems. This partnering includes data collection efforts.	None.

FGDC Member Agencies	12) Enterprise Architecture	13) Partnerships	14) Lessons Learned
F) DOT - Department of Transportation	As the principal map and terrain model developers for FAA in support of the NAS, AVN has developed and integrated certified geospatial methods into its enterprise architecture. AVN uses these methods to collect and validate data and to develop, maintain and validate charts and terrain data models. These geospatial methods have been made available to other government agencies in the form of geospatial tools. FAA is also taking part in developing a draft Framework Data Content Standard for Air Transportation in coordination with BTS. (For more please see DOT report)	The DOT has a long history of collaborating with other Federal and non-Federal agencies for data collection. BTS seeks relationships with field-level organizations, or the organization(s) closest to the data development process as possible. Before conducting any data gathering effort, BTS surveys the community to identify partners and other interested parties wishing to take part in or benefit from the project. BTS cooperates with FGDC, other Federal agencies, State and local governments, academia, and private enterprise to develop Transportation Data Content Standards and web portal to support the Geospatial One Stop initiative. (Please see DOT report for more examples)	BTS is developing a document on lessons-learned related to GOS activities. FAA is sharing lessons learned by chairing the NIAC/GISWG and participating in the agency's geo-spatial awakening. OPS is finding that standards for dealing with security of information pertaining to critical infrastructure are vague and do not assist government agencies with protecting security sensitive geospatial information.
G) EPA - Environmental Protection Agency	Yes. Incorporating geospatial data and technology into mainstream business and IT management will enhance the value of the data available for environmental planning, analysis, and decision support. EPA will transition to a technical environment with georeferenced ambient monitoring and program data jointly residing in integrated database systems with geospatial data and imagery. (see EPA report for more)	To avoid duplication of effort EPA is working to acquire data directly from the source so no duplication of effort occurs. EPA is working with: USGS, State and local groups, data partnerships in the EPA regions, and multi-agency geospatial data production projects. Alhtough data sharing and integration are key components of these efforts EPA does not have formal agreements or MOUs specifically about data sharing and integration. (see EPA report for more)	FGDC needs to promote and support easy mechanisms for developing metadata development at the time of data collection (e.g. ARC catalogue) and let developers know these tools exist. The large number of elements required to meet FGDC metadata requirements increase the level of effort and commitment necessary to comply with the requirement.
H) FCC - Federal Communications Commission	As part of its enterprise architecture, the FCC has analyzed the business processes, systems and data associated with licensing. We maintain logical and physical data models for its licensing systems. The FCC's Enterprise Architecture includes the following geospatial data elements which we categorize as part of the Facility Description Data: Street, County, City, State, Zip, latitude, longitude, North American Datum and Facility Elevation (AMSL).	The FCC established a tower construction notification system that allows companies to submit notifications of proposed tower to Indian Tribes, the Native Hawaiian Organization (NHO), and State Historic Preservation Officers (SHPOs), and allows them to respond directly to the companies if they have concerns about a proposed construction; The FCC has entered into a Memorandum of Understanding (MOU) with National Geo-Intelligence Agency (NGA) to share antenna structure information; All of the FCC licensing data is available as bulk data from the FCC website for public use without any restriction	None.
I) FSA - Farm Service Agency	Yes. A major element of FSA's business and that of its partner Service Center Agencies is the measurement and accounting of agricultural commodities and land. To accomplish this mission, mapping has been a key component of USDA field office operations since at least the 1930's. A crucial feature of the emerging enterprise architecture is the integration of geospatial and tabular data streams to improve operational efficiency and customer service.	FSA participates in and was one of the founding members of the National Aerial Photography Program and the National Ortho-Photography Program. Both programs provide for partnerships at the state level and with other federal agencies for imagery acquisition. In 2003, FSA worked with other local, State and Federal partners to establish a compliance/orthoimagery replacement program called the National Agriculture Imagery Program (NAIP). FSA works with NRCS and Rural Development Agencies to identify, acquire, share and create development and use standards for geospatia data	Without sufficient consistent funding, Agencies cannot implement GIS into mission activities in a timely or effective manner, thereby limiting ability to fully integrate E-Gov capability. Funding for GIS initiatives has been inconsistent and when funded resources are generally limited. Without consistent funding it is difficult for Federal agencies to collaborate with state and local entities in a timely manner and capitalize pooled resources for data acquisition.
J) FWS - Fish and Wildlife Service	GIS is one of 12 inter-related components of the "Service Information and Technology Architecture (SITA)." The GIS Architecture component of SITA is defined in detail and includes a mission statement, introduction and background, standards, contracts, and a Service contact person. While the focus of SITA is on bureau-unique issues, it will seamlessly mesh with, and fully support, the DOI Enterprise Architecture and the Federal Enterprise Architecture.	FWS has partnerships with: The Conservation Fund, USGS Biological Resources Discipline, NWI Program, Multi-Resolution Land Characteristics Consortium (MRLC), The Gulf of Maine Coastal Program, The High Plains Partnership, The Great Plains GIS Partnership, The Lower Mississippi Value Joint Venture. (See response for more details.)	A major concern is the increasing number of non-funded mandates from sources outside the FWS in the area of spatial data. The sheer volume of the directives and data calls far exceeds FWS's ability to adequately respond with existing resources.
K) GSA - General Services Administration	The GSA PBS Enterprise Architecture considers the capture of geospatial (geocodable) data at the addressing/location level. The Data Architecture includes location data about the facility. The Business Architecture depicts this information as being created and maintained in the functions of Manage Design and Construction and Manage Space Delivery.	GSA PBS is a participating member of the Homeland Infrastructure Foundation Level Database (HIFLD) Working Group. HIFLD is a community of interest of over 90 federal, State and local government organizations and supporting contractors concerned with geospatial issues related to homeland security, critical infrastructure protection and crisis and consequence management.	The accurate identification of facilities according to type and location (including remote facilities), using proper standards for data collection and measures to ensure standards compliance, is critical for data management and sharing. Developing and implementing geospatial data systems must be based upon well defined business processes including maintenance processes to ensure the usability, reliability and accuracy of the data on an ongoing basis.

FGDC Member Agencies	12) Enterprise Architecture	13) Partnerships	14) Lessons Learned
L) HHS - Health and Human Services	Geospatial data is a vital element of the CDC Enterprise Architecture. Geospatial data usage at CDC maps under the FEA Business Reference Model's (BRM's) 'Services for Citizens' Business Area and the 'Health' Line of Business and under the FHA's sub-function of 'Manage Population Health and Consumer Safety.' Geographic Information Systems use services primarily reflected in the Services Component Reference Model's (SRM's) 'Business Analytical Services' Domain and the 'Back Office Services' Domain. Geospatial data is addressed in the 'Data Management' Service Type in the 'Data Exchange' and 'Meta Data Management' Components. (See response for more examples)	CDC/NCEH/ATSDR: Some MOUs exist at the Program level; examples include the Environmental Health Tracking Network. The Agency has partnerships for data sharing with the DHHS SCC, EPA, FEMA, NASA, USGS, and NGA. The NCHSTP Global Aids Program (GAP) is currently funding the World Health Organization (WHO) to collect geospatial and other data on health facilities in Africa. The activity, supported jointly by GAP, USAID, Office of the Global AIDS Coordinator, and the Humanitarian Information Unit of the Department of State is known as the WHO Service Availability Mapping (SAM) project. (see response for more examples)	An Agency-level policy is needed to promote awareness and to require/urge CDC Programs to publish and share their spatial data and to create the required FGDC Metadata for those datasets. In our experience, FGDC Metadata authoring is a daunting task. All authoring tools we evaluated, commercial and Public Domain seemed to be difficult to use even for computer experts. A more user-friendly and more efficient FGDC Metadata authoring tool would definitely help this initiative. CDC GIS activities are in need of better coordination, standardized, and better compliance with FGDC standards. (see response for more examples)
M) NARA - National Archives and Records Administration	The enterprise architecture does not contain a component specifically for geospatial data. Electronic records transferred to NARA come from virtually all lines of business defined in the Federal Enterprise Architecture and, therefore, represent a wide variety of data types.	NARA does not collect geospatial data.	None.
N) NASA - National Aeronautics and Space Administration	Geospatial data is the basis of the Earth-Sun Mission Strategic Plan. Geospatial data is gathered, modeled, disseminated and studied accordingly.	NASA created and leads the FGDC Geospatial Applications and Interoperability WG. NASA GIO holds Agency membership in OGC. NASA GIO provides agency representation in ISO TC211 Geographic Information/Geomatics. NASA participates actively in Geospatial One-Stop. NASA Science Mission Applied Sciences Program has various ongoing partnerships and data-sharing activities. NASA's Facilities Engineering Division participates in the CAD/GIS Technology Center.	Volumes of Data are of concern and access and use of data through open standards. Also, Data visualization is another area of importance to NASA, in terms of advancing the technology. NASA Science Mission will continue to support the use of open, consensus standards in the development of information systems handling geospatial data.
O) NGS - National Geodetic Survey	Yes. NGS performs functions necessary for NOAA to attain its objective to "Develop the National Spatial Reference System (NSRS)" and help enable accurate positioning capacity at the local level. NSRS provides the US with a common geographic framework, is the foundation for the NSDI, and is essential for mapping and scientific applications. Efforts to improve NSRS are fully coordinated with NOAA's enterprise architecture.	NGS partnerships include: 34 states and territories have either a State Geodetic Advisor, jointly funded through agreement between NGS and the individual state, or a locally funded State Geodetic Coordinator. 83 state, local, academic, private, and other federal agencies partner with NGS in providing Global Positioning System (GPS) data from Continuously Operating Reference Stations (CORS) to the NGS-managed National CORS network.	4 Concerns: Consistency – Ability to integrate a point's coordinates with points from different sources has been addressed through official national datums. Accuracy – Ability to regularly achieve high levels of positional accuracy has been improved by employing GPS techniques developed by NGS. Timeliness –Techniques are continually developed by NGS to reduce the time required to position a point. State Legislation on spatial reference – Some existing state legislation may no longer adequately relevant to current technology.
P) NRCS - National Resources Conservation Service	The USDA Service Center Agencies (SCA) maintains shared enterprise architecture. Geospatial data are a key component and driver. The SCA's are implementing a mixed decentralized and centralized architecture to accommodate the need of all three agencies. The data architecture accommodates the need for geospatial data at all levels of the organizations, local, state and national. At the local and state levels data are being provided to all three agencies and their partners from shared servers using FGDC standard data and metadata in a common file and folder structure. SCA are implementing geodata warehouses for web delivery of geospatial data to local, state and national offices and our customers. NRCS data is discoverable via links on Goedata.gov.	NRCS staff are active members of the state geodata consortiums which are critical in leveraging funds to support data development. There are many NRCS state level partnerships with other federal agencies, states, local and tribal governments. Examples include, staff sharing between NRCS, BLM and Forest Service, multi-partner funding for the completion of soil surveys, university partnerships to support digital data development and DOQ development with USGS. State by state detailed information available upon request. The National Cooperative Soil Survey (NCSS) is a national, multi partner effort to support the collection, distribution and interpretation of soils information. Yes, NRCS has formal MOUs with various federal, state and local entities to support the one of three primary goals 1) data collection meeting business and programmatic needs, 2) acquisition of a specific theme of data such as elevation 3) acquisition of multiple data sources for defined geographic area.	The continued convergence of federal coordinating efforts such as Geospatial One Stop, National Map and FGDC is positive and should greatly increase the strength of the NSDI. Enhanced linkages with coordination bodies focused on data production like NDOP and NDEP should be leveraged. The Geodata.gov Marketplace may be an opportunity to develop formal partner groups such as NDEP and NDOP to further enhance data development for a specific theme of data.During the FGDC Future Directions effort, review of subcommittees and working group charters should focus on defining a clear mission in light of any changes developed in the future direction effort. Would also suggest retiring groups that may have served their chartered purpose.

FGDC Member Agencies	12) Enterprise Architecture	13) Partnerships	14) Lessons Learned
Q) TVA - Tennessee Valley Authority	GIS is a recognized component of our enterprise information system (IS) architecture. TVA corporate IS organization develops and maintains computer resources and applications support for enterprise GIS activities, most of which are funded by operational organizations. Requirements are identified by the operational organizations. Data is developed and maintained by the operational organizations. Computer hardware, network, software, and development support are provided at the corporate level. The TVA GIS Coordination Council coordinates program activities internal to TVA.	TVA participates in many coordination activities and uses FGDC and national mapping standards when appropriate. An example of one specific activity we participated in at the field level is the Southern Appalachia Man and the Biosphere (SAMAB) consortium. One of TVA's GIS professionals is assigned to work full time with SAMAB. TVA also participates in state GIS federal user groups and local professional meetings.	None.
R) USGS - U.S. Geological Survey	Yes. The USGS is compliant with the Department of the Interior (DOI) Enterprise Architecture. Integration and alignment of geospatial data and geospatial technologies with key DOI mission/business processes is a key component of the DOI enterprise architecture.	The USGS actively seeks out sustainable partners in all of its geospatial data activities. A key focus area of the current geospatial data programs reorganization is to enhance the bureau's capability to develop and maintain field-level partnerships in support of the NSDI. Specific individual partnerships and data sharing activities with other federal agencies, state, local, and tribal governments and other entities are too innumerable to list here. USGS has numerous agreements, MOU's, etc. concerning data sharing and integration.	As USGS proceeds over the next several months with the reorganization/realignment of the management of its key geospatial data programs, it is anticipated that there will be issues or lessons learned from this activity that could be shared with other agencies that have similar interests and objectives.